(No Model.)

G. J. TERRELL.

SMOKE, SOOT, AND SPARK DESTROYER.

No. 600,048. Patented Mar. 1, 1898.

Fig 1

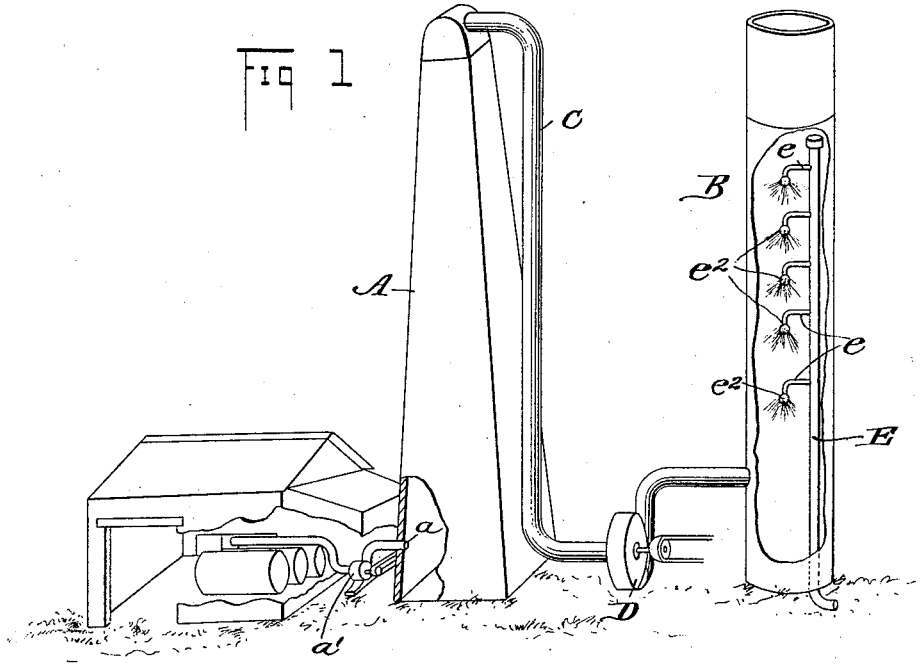

Fig 2

WITNESSES:

Geo. E. Edwards

C. R. Ferguson

INVENTOR

G. J. Terrell

BY Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE J. TERRELL, OF MERIDEN, CONNECTICUT.

SMOKE, SOOT, AND SPARK DESTROYER.

SPECIFICATION forming part of Letters Patent No. 600,048, dated March 1, 1898.

Application filed April 25, 1896. Serial No. 589,108. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. TERRELL, of Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Smoke, Soot, and Spark Destroyers, of which the following is a full, clear, and exact description.

This invention relates to means for destroying smoke, soot, and sparks issuing from furnaces.

It is well known that at manufacturing centers and about factories the smoke and soot issuing from chimneys constitute a great source of annoyance, and there is a constant danger from sparks. A number of devices—such, for instance, as so-called "smoke-consumers"—have been employed to remedy the evil; but such devices have not proved of value by accomplishing the desired result. The object of my invention is to provide means to wholly destroy the smoke, soot, and sparks.

I will describe a device embodying my invention and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is an elevation, partly broken away, of a device embodying my invention; and Fig. 2 is a sectional view of one of the spray-nozzles.

Referring to the drawings, A designates a chimney closed at its upper end, and into the lower portion of which the smoke-pipe *a* passes from the furnace or furnaces in the boiler-room. A draft-inducing fan *a'* is shown as located in the smoke-pipe, and this fan is to be operated in the usual manner.

B is an auxiliary chimney connected with the chimney A by the smoke-pipe C. The pipe C leads from the closed upper end of the chimney A to the lower portion of the auxiliary chimney B, and in the said pipe C the circulating-fan D, operated in any suitable manner, is arranged.

E is a stand-pipe arranged within the auxiliary chimney B. This pipe leads from a suitable water-supply, and within the chimney it is provided with branch pipes *e*, terminating in spray-nozzles e^2, designed to direct water downward and laterally in small jets, which will embrace the entire transverse area of the chimney. A series of water-sprays, as described, will effectually destroy the products of combustion—such as smoke, soot, and sparks.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The combination with a chimney having its upper end closed, of an auxiliary chimney, a smoke-pipe leading from the top of the first-named chimney to the lower portion of the auxiliary chimney, a circulating-pan in said pipe, a water-pipe within the auxiliary chimney, and spray-nozzles on said water-pipe, substantially as specified.

GEO. J. TERRELL.

Witnesses:
F. W. HANAFORD,
JNO. M. RITTER.

Correction in Letters Patent No. 600,048.

It is hereby certified that in Letters Patent No. 600,048, granted March 1, 1898, upon the application of George J. Terrell, of Meriden, Connecticut, for an improvement in "Smoke, Soot, and Spark Destroyers," an error appears in the printed specification requiring correction, as follows: Line 66, the compound word "circulating-pan" should read *circulating-fan;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 29th day of March, A. D., 1898.

[SEAL.]

WEBSTER DAVIS,
Assistant Secretary of the Interior.

Countersigned:

C. H. DUELL,
Commissioner of Patents.